

## Transportation

Throughout its history East Cambridge has been well served by a variety of transportation systems: railroads, canals, local streets, regional highways, public rapid transit and bus service. Unfortunately, the range of choices is more limited today than in the past. The canals have been abandoned and filled, rail service has been curtailed, and transit facilities have deteriorated. This decline in alternative modes has contributed to heavy reliance on automobile and truck travel.

East Cambridge's location invites tremendous volumes of through-traffic daily. Monsignor O'Brien Highway carries over 38,500 vehicles per day. Memorial Drive and its extensions (the Cambridge Parkway and Commercial Avenue) carry 30,000. Both are considered an important part of the regional arterial network. Third Street, a narrow residential street, is used by more than 12,000 cars daily. Both trucks and cars use residential streets as thoroughfares at all hours.

Parking is another critical neighborhood issue. Residents and employees must compete for an insufficient number of on-street spaces. The City's residential parking sticker program has helped to some degree, but a major need for more parking still exists around the county government complex. Proposed off-street parking for the new county courthouse has yet to be built. One proposal involves replacing the Bulfinch Courthouse building with a parking lot, but only a fraction of the total need would be satisfied.

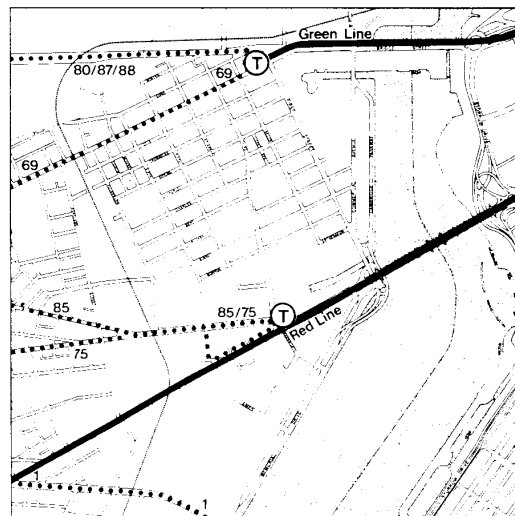


27. Third Street.  
Photograph shows heavy truck through-traffic.

East Cambridge is served by two rapid transit lines, the MBTA (Massachusetts Bay Transportation Authority) Red Line and Green Line, and seven MBTA bus lines. The Red Line station at Kendall Square is slated for extension and renovation as part of a general Red Line upgrading program. The Green Line station, the most convenient rapid transit link for neighborhood residents, is a physical eyesore and not safely accessible to pedestrians. The location of the elevated railway and station at the intersection of Monsignor O'Brien Highway and Cambridge Street creates havoc for both vehicles and pedestrians in Lechmere Square and presents a most unsightly gateway to the city. Improvement of this situation should be an integral part of the revitalization of this section of the neighborhood.



26. Existing Daily Traffic Volumes.



28. Mass Transit.  
The dotted lines indicate existing bus routes.

## Existing Industrial Zoning

About two-thirds of East Cambridge is zoned for industry and comprises one of the major industrial districts in the City of Cambridge. The current industrial zoning, dating from the 1950's, is extremely permissive; all types of land use except residences are permitted; high density development is allowed; and the zoning prescribes very few site design requirements such as controls on landscaping, building height, building setback and parking/loading area layout. This flexibility (allowing development of activities to much greater density than that required by most manufacturing firms) has contributed to land speculation and the inflation of property values. This land price inflation has in turn contributed to the exodus from Cambridge of those industries which have traditionally provided blue collar jobs.

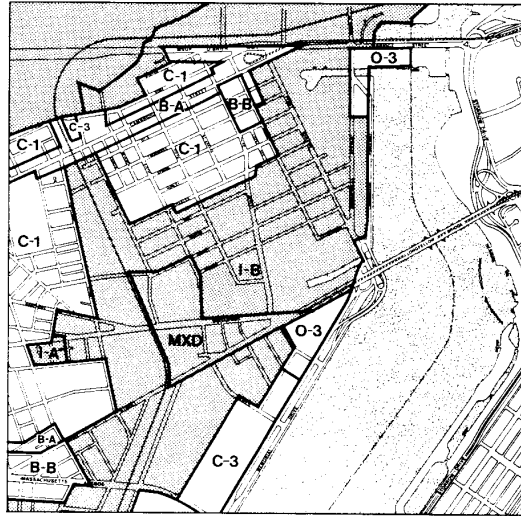
Another problem with the existing zoning is that excessive permissiveness in the industrial district provides no protection for abutting residential properties. Transitional height limitations, landscaping requirements and building setbacks could enhance the value of adjacent properties in the residential district. Furthermore, the zoning ordinance's use, density and parking requirements are not sufficiently flexible to enable the adaptive reuse of 19th century industrial and institutional buildings in the neighborhood.



29. Railroad Right-Of-Way

Much of East Cambridge's industrially zoned land is barren; spreading decay threatens the stability of abutting residential neighborhoods.

In summary, the area's zoning pattern encourages uses other than those which it intended to encourage. It does not provide the protection necessary to safeguard viable industrial activity. It does little to assure quality new development. It does not differentiate among the locational differences in East Cambridge; large land areas are treated uniformly. Zoning has encouraged an uncertain future.



### 30. Existing Zoning.

- 1-A Warehouse Storage, Light Manufacturing, Hotel & Office; FAR = 2.0, Unlimited Height
- 1-B Heavy Industry, Hotel & Office; FAR = 4.0, Unlimited Height, No Transitional Requirements
- C-1 Multi-Family Dwellings (Apartment House, Dormitory); FAR = 0.75, Maximum Height = 35'-0"
- C-3 Multi-Family Dwellings (Apartment House, Dormitory); FAR = 3.00, Unlimited Height
- O-3 Business & Professional Offices and Multi-Family Dwellings; FAR = 3.0, Unlimited Height
- B-A Local & Drive-in Retail Business, Multi-Family Housing; FAR = 1.0, Maximum Height = 35'-0"
- B-B General Business, Multi-Family Housing; FAR = 4.0, Unlimited Height. (Residential Requirement, see C-3)

## Interest Group Perspectives

Various groups have legitimate interests in the future of East Cambridge. Certain of these interests are compatible and can reinforce one another, while others are contradictory. The challenge in planning for the future is to reach a reasonable compromise among these interests. Seven principal interest groups have been identified. They are: 1) East Cambridge residents; 2) the property owners and tenants in the commercial area; 3) landowners and tenants in the industrial zone; 4) the City of Cambridge; 5) Middlesex County; 6) Regional Agencies (the MDC and MBTA); and 7) the Commonwealth.

Most residents of East Cambridge fear new development. There has been widespread disapproval of most recent growth in the neighborhood. New buildings are taller than those built in the past, with the new courthouse reaching a height of over 200 feet. Development on this scale is viewed as incompatible with the traditional pattern of 2-3 story structures found in the neighborhood.

Other community desires include a solution for the courthouse parking shortage and an elimination of through-traffic now disrupting the neighborhood. Residents support the objectives of new job opportunities, better open space and recreation facilities and convenient linkages to new riverfront development. But most importantly, the neighborhood wishes to preserve identity. Neighborhood residents have requested a buffer between the existing residential area and new housing at the riverfront. One additional concern is the preservation of the Bulfinch Courthouse structure, in part as a neighborhood facility.

Commercial property owners and tenants desire to be good neighbors, but must remain competitive with similar businesses in other locations. In order to remain competitive, they need to maintain their visual identity and must have easy access and sufficient parking to attract customers.

Industrial property owners and tenants wish to maximize their profit. In order to do this they desire good transportation access, adequate services, a good supply of labor and a favorable tax situation. It is becoming increasingly apparent that for industries to compete satisfactorily in the labor market, they

must offer workers various amenities such as nearby shopping and entertainment facilities.

The City's goals are straightforward: 1) creation of more jobs; 2) expansion of the tax base; and 3) enhancement of the physical environment. But the City does not favor new economic activity at the expense of destroying an existing residential community.

Improving the physical environment should provide amenities for the people of East Cambridge and for city residents generally. One important aspect of physical improvement is the preservation and maintenance of historically and architecturally significant features of the neighborhood, including the Bulfinch Courthouse.

Middlesex County's interests are those of an organization which must carry on day-to-day business in East Cambridge: sufficient space to operate efficiently, convenient access, and adequate parking for its employees and visitors. Additional parking facilities for the new courthouse are badly needed. The county's proposal to demolish the Bulfinch building for a parking lot had met stiff opposition. While the county is aware of the building's historic importance, an appropriate and feasible reuse proposal had not been advanced before this study.

Two regional agencies will play an important role in the future of East Cambridge. The Metropolitan District Commission (MDC) is seeking ways to improve the quality of its waterways, to increase open space, and to improve the traffic carrying capabilities and aesthetics of its parkways. The MDC opposes future landfilling in the Charles River Basin and connecting canals. The height of new development along the river is another MDC concern. Both the MDC and MBTA are concerned about the blighting and disruptive influences of the Lechmere transit station. Prior to the urban design study no specific improvements had been programmed for the station area.

The Commonwealth's policy is to promote economic development in urban centers. This policy seeks to concentrate new development and to encourage investment in the state's older cities to take advantage of the existing infrastructure.

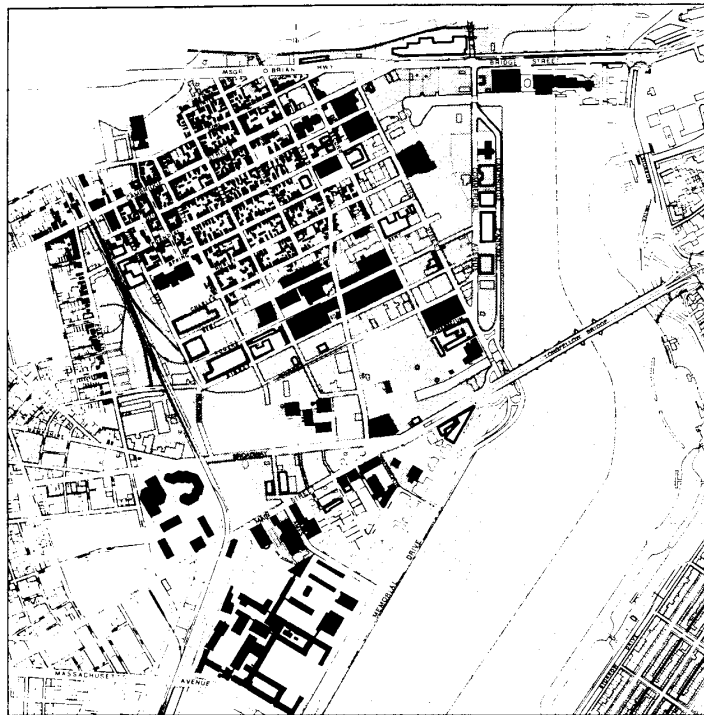
## 4 Pressures for Change

Analysis of current conditions in the study area indicates that much of the land is likely to undergo change during the next several years. The likelihood for change has been predicted by evaluating the relative "hardness" and "softness" of individual parcels of land. The results of this analysis are shown in Figure 31.

The hard parcels are those which are unlikely to change due to physical condition, economic value, or political pressures. The soft parcels are those considered less stable and therefore more likely to change. Soft parcels include vacant land, one-story structures, dilapidated buildings, a location next to parcels where substantial new development is predicted.

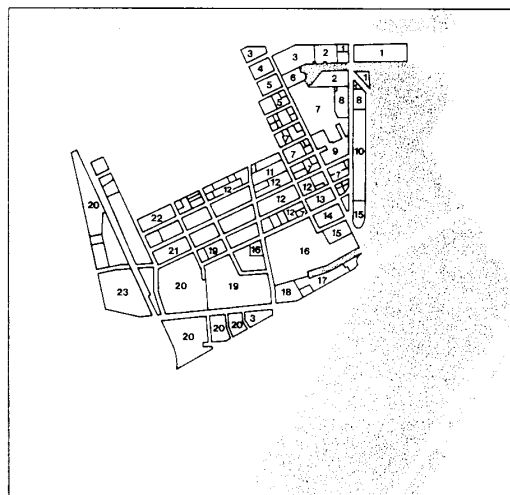
The factors considered in rating each piece of land are: 1) parcel size; 2) excess development potential (relationship of what exists on the lot to what could be built under present zoning); 3) ownership; 4) age of building; 5) rehabilitation/reuse potential of existing buildings; and 6) expressed development interests of property owners.

Large land parcels are prevalent in the industrially zoned sections of East Cambridge. Lechmere, Real Estate Investment Trust of America, the National Casket Company, Carter's Ink and Cambridge Electric all own parcels of land in excess of one acre; several exceed three acres. A large portion of the remaining land is in the hands of public agencies, including the Cambridge Redevelopment Au-



31. Hard/Soft.

- Hard (Structure Very Likely to Remain in the Future)
- Soft (Structure Subjected to Developmental Pressures)
- Presently Vacant and/or For Sale
- Unknown Status at this Time



32. Ownership.

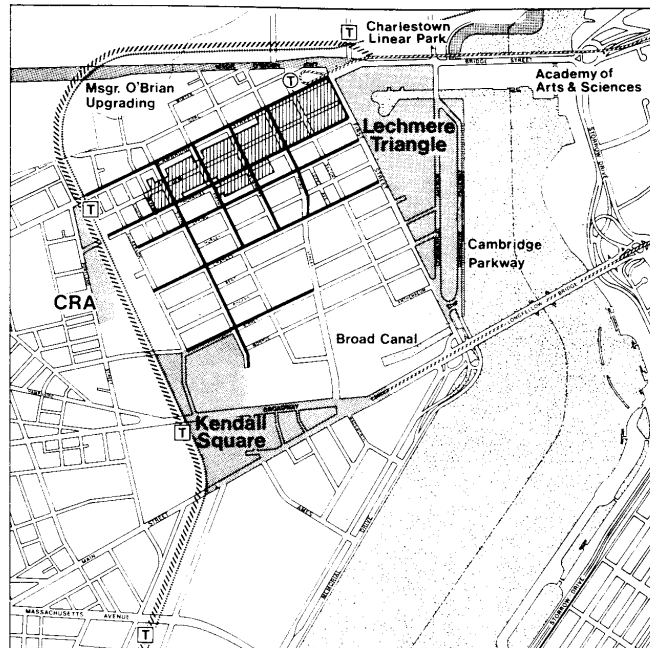
1. Commonwealth of Massachusetts
2. Boston Society of Natural History
3. Mass. Bay Transit Authority
4. Sultana Realty Trust
5. Charles Webb
6. Canal Realty Trust
7. Mezuries Realty Trust
8. Charter House of Cambridge
9. National Casket Co., Inc.
10. Real Estate Investment Trust of America
11. Enterprise Moakler Co.
12. William Crane Properties Trust
13. Binney Realty Trust
14. Northwestern Mutual Life Ins. Co.
15. Carter's Ink Co.
16. Commonwealth Gas Co.
17. Cambridge Electric Light
18. The Badger Co., Inc.
19. United States of America
20. Cambridge Redevelopment Authority
21. Industrial Stainless Steel, Inc.
22. Busch & Co. of Massachusetts
23. Boston Woven Hose & Rubber Co.

thority, the Metropolitan District Commission, and the Massachusetts Bay Transportation Authority. Land owned by Carter's Ink and the Museum of Science has been for sale during the course of this study.






Currently there is substantial discussion concerning new development in the study area. The City, landowners and developers are actively considering potential development projects in the area. Preliminary discussions indicate a strong willingness to redevelop. The Cambridge Redevelopment Authority is about to begin development at the nearby Kendall Square urban renewal area. Within the residential area certain streets and sidewalks have been programmed for rebuilding and for improvements such as lighting and trees.

Part of the residential neighborhood has been nominated for designation as a National Register Historic District. If the nomination is accepted, substantial funds could become available for historic preservation, rehabilitation and building reuse. The MDC has plans to upgrade Monsignor O'Brien Highway and to build a linear park along the Charles connecting East Cambridge with the new Charlestown Navy Yard development and park system.

A conservative estimate indicates that more than 100 acres of land in the study area are soft. New development (programmed and under consideration), easy access, proximity to downtown Boston and MIT, the availability of a ready work force, and a high percentage of land being held in large available parcels valued at prices generally ranging from \$5.00 to \$8.00 per square foot all increase the likelihood for change in East Cambridge.



### 33. Opportunities

-  Areas presently under study.
-  Proposed National Register Historic District
-  Roadways and/or sidewalks slated for improvement utilizing block grant funds
-  Extension of Mass Transit
-  Possible station locations



34. Aerial Photograph of East Cambridge. Numerous large vacant parcels of land surround historic East Cambridge.

## 5 Development Policies

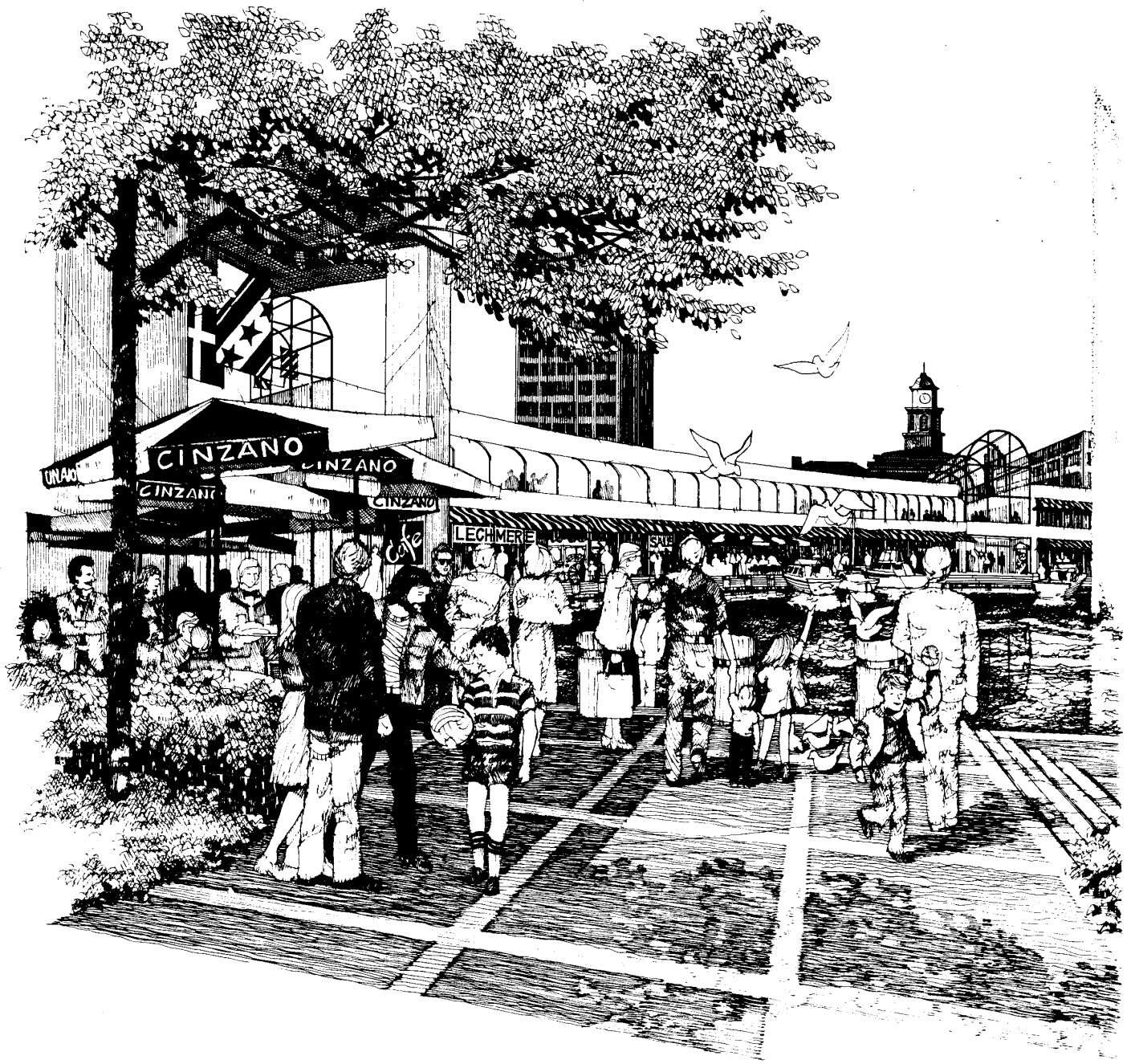
The urban design analysis of East Cambridge has identified four development districts within the neighborhood (see Figure 36). The shape of these districts evolved during the study, based on land ownership, existing development patterns, and perceived possibilities for the future. The district lines shown on the map are not proposed zoning districts and do not necessarily represent fixed boundaries. They are intended to identify areas with common characteristics in which similar themes for the future seem to make sense.

A set of development policies is proposed for each of these areas. These policies should shape public and private development decisions by providing a framework evaluating both specific development proposals and public actions such as zoning changes or roadway improvements.

Development objectives and design guidelines are specified in the appendix for each of the districts. These are guidelines on preferred land use, scale of development (amount and size), form of development (location, arrangement and massing of buildings), linkages (traffic patterns and physical interrelationships within and among areas) and design details.

Transcending the district policies are several fundamental design principles which have emerged during the study and which form the underlying basis of the East Cambridge Riverfront Plan. These principles are:

- Recognize and exploit the inherent value of the riverfront as an environmental and economic asset of city-wide significance.
- Create a new positive and exciting physical image for the City's eastern edge and entrances.
- Create new opportunities for tax and job producing development.
- Preserve the physical and social characteristics of the East Cambridge residential community.
- Create focused centers for new commercial, residential and industrial activities.
- Create major new open spaces and a greenway system connecting them.
- Develop strong physical, visual and functional interrelationships within and among development areas.
- Encourage the preservation and reuse of worthwhile older buildings.
- Reduce the role of the automobile in East Cambridge by encouraging transit use and by creating better opportunities for pedestrian and bicycle travel.
- Divert and reduce truck traffic.



**35. Rendering of the Planned Lechmere Canal Development.**  
*The Canal's fountain is the open space focal point of the mixed use development. This development incorporates retail, office, and residential uses as well as public parking facilities. Strong pedestrian linkages to historic East Cambridge, the Riverfront, and a new re-located Lechmere Square transit station form the basis of the plan.*

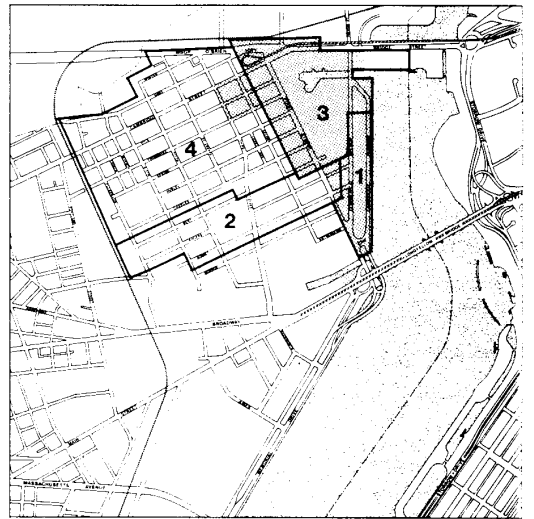
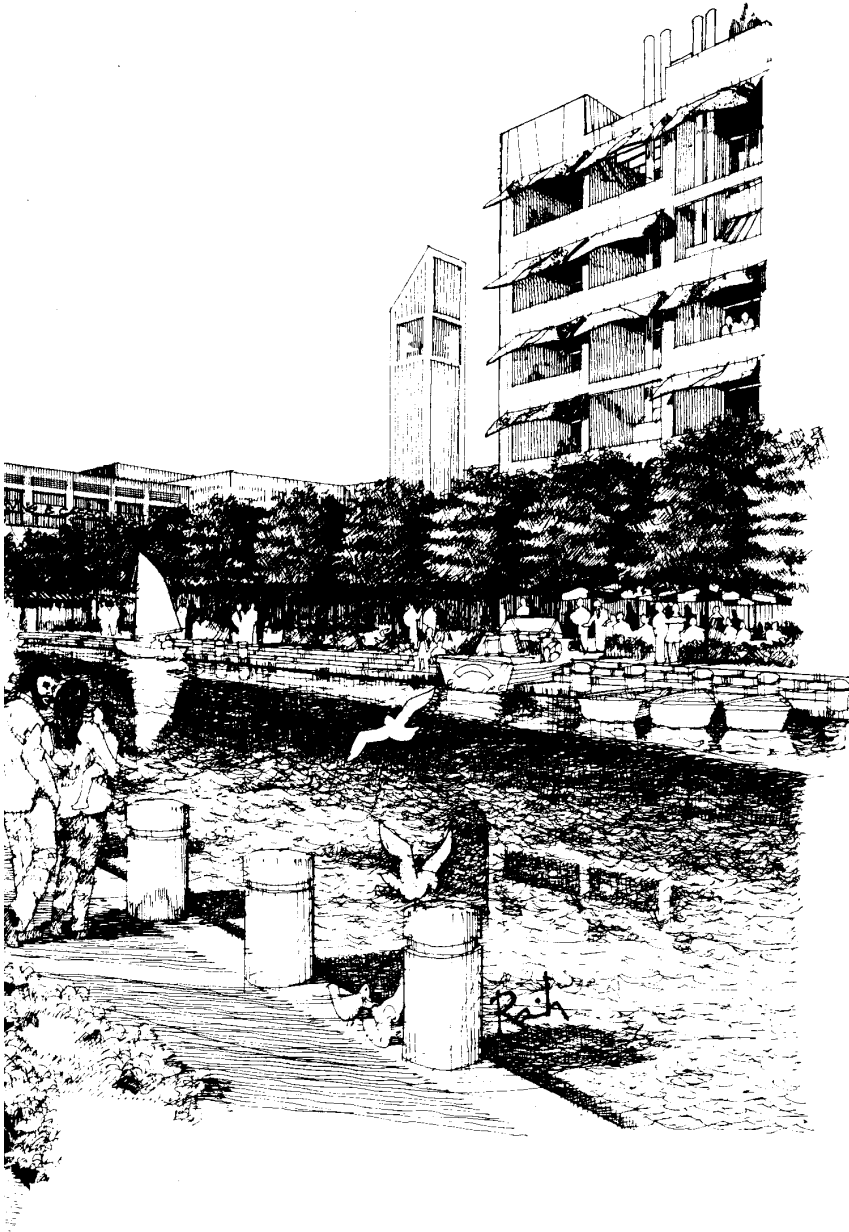
## 6 Design Proposal

The analysis of the historical perspective, opportunities and needs of interest groups provided the basis for designing an appropriate physical image for East Cambridge. This image has become the standard by which individual development projects and public improvements will be judged and approved.

The part of East Cambridge most critical and subject to strong immediate development pressure is the Riverfront area from Lechmere Square to Longfellow Bridge. Designated as the target area for the design proposal (see Figure 36), the Riverfront consists of four development districts set up by this study as follows:

1. The Front
2. Front Street (presently Rogers Street)
3. Lechmere Square and Canal (The Triangle)
4. Bulfinch Square (in Historic East Cambridge).

The districts are tied together and given form and importance by the proposed open space and transportation systems.



36. Development Districts.

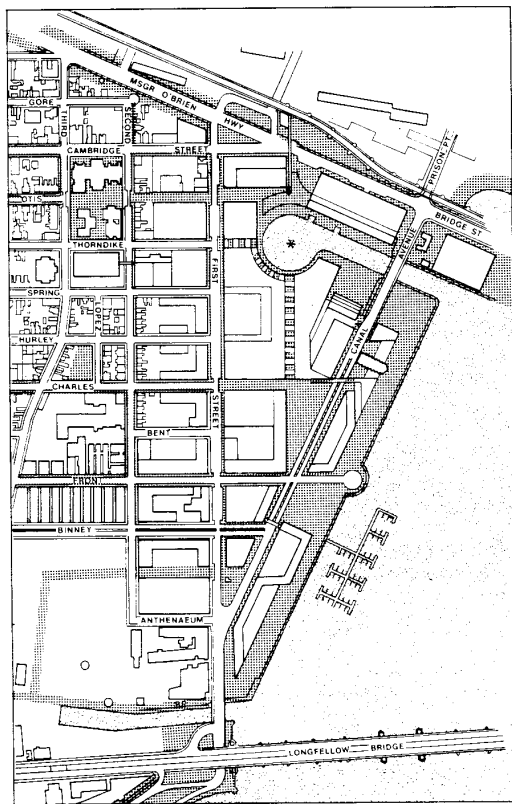
*The target area is the grey-toned triangle along the River Basin.*



## Open Space Improvements

The overall framework of the urban development proposal is a new 16-acre public open space system which provides the existing neighborhood with access to the river and with a connection to the new development. The proposed open space system answers historic East Cambridge's urgent need for open space by locating one-half of the new park space adjacent to the existing residential community. Furthermore, the plan assists in improving the city's visual image through the rediscovery and embellishment of its forgotten assets, the River and Canal.

There are two major pedestrian focal points, The Riverfront and Lechmere Canal and a series of related spaces offering variety in size, shape and use. The projected building volumes and configurations give form and structure to the open space system, while maximizing the hours of sunlight bathing the public spaces. New housing borders the open space system, insuring 24 hour activity and effecting an informal means of surveillance by residents. Factors of both sunlight and



37. Planned Open Space System.

territoriality give a sense of security to the open space system that would invite users day and night.

## Transportation Improvements

The plan for roadway improvements is primarily based on the City of Cambridge's East Cambridge by-pass plan, now undergoing environmental analysis for state and federal approval.

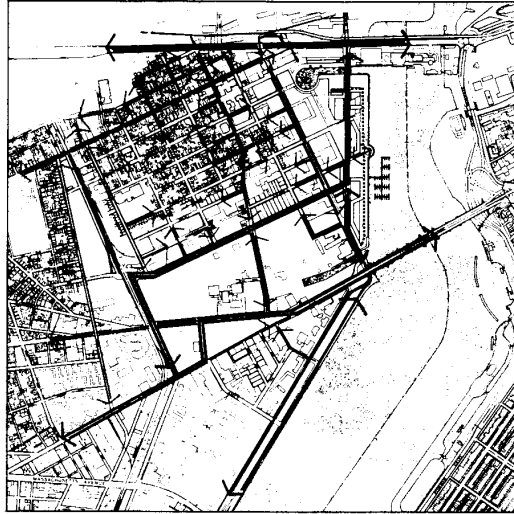
The following roadway improvements recommended by this study are intended to improve the traffic flow and environment of East Cambridge, encouraging high quality development in the target area. These recommendations include:

- Widen Binney Street (to 4 lanes with median) from Third Street east to Commercial Avenue; add new signals at the Binney Street/Commercial Avenue intersection (The Binney Street traffic collector is intended to discourage traffic through the East Cambridge residential neighborhood, as well as to direct traffic around the Kendall Square Urban Renewal project);
- Widen Commercial Avenue, the new Canal Street, (to 6 lanes with median) from First Street north to the Monsignor O'Brien Highway, including a new Lechmere Canal Bridge;



38. Eliot Bridge, Charles River

*The new Lechmere Canal Bridge will be designed to be a graceful addition to the Charles River Basin.*



**39. Planned Traffic Circulation.**  
*A one-way circulation system in the residential neighborhood would discourage unnecessary through-traffic.*

- Widen the Monsignor O'Brien Highway from Lechmere Square east to Commercial Avenue;
- Improve the approach capacity at the Monsignor O'Brien Highway/Commercial Avenue intersection by the addition of new lanes and signals coordinated with those at Lechmere Square;
- Modify the northbound connection of Memorial Drive to Commercial Avenue in the southern portion of the project area (the road network at the Longfellow Bridge approach should be altered in a manner which links Memorial Drive's open space with that of the Front);
- Close the five-lane Cambridge Parkway to through-traffic and replace it with a more suitable access road and public open space (the low-speed road would allow emergency/service access when required).



**40. Photograph of East Cambridge Riverfront Model.**  
*New planned development is represented by the lighter buildings in the center of the photograph. This view clearly shows the open space system linking the neighborhood directly to the Canal and River.*

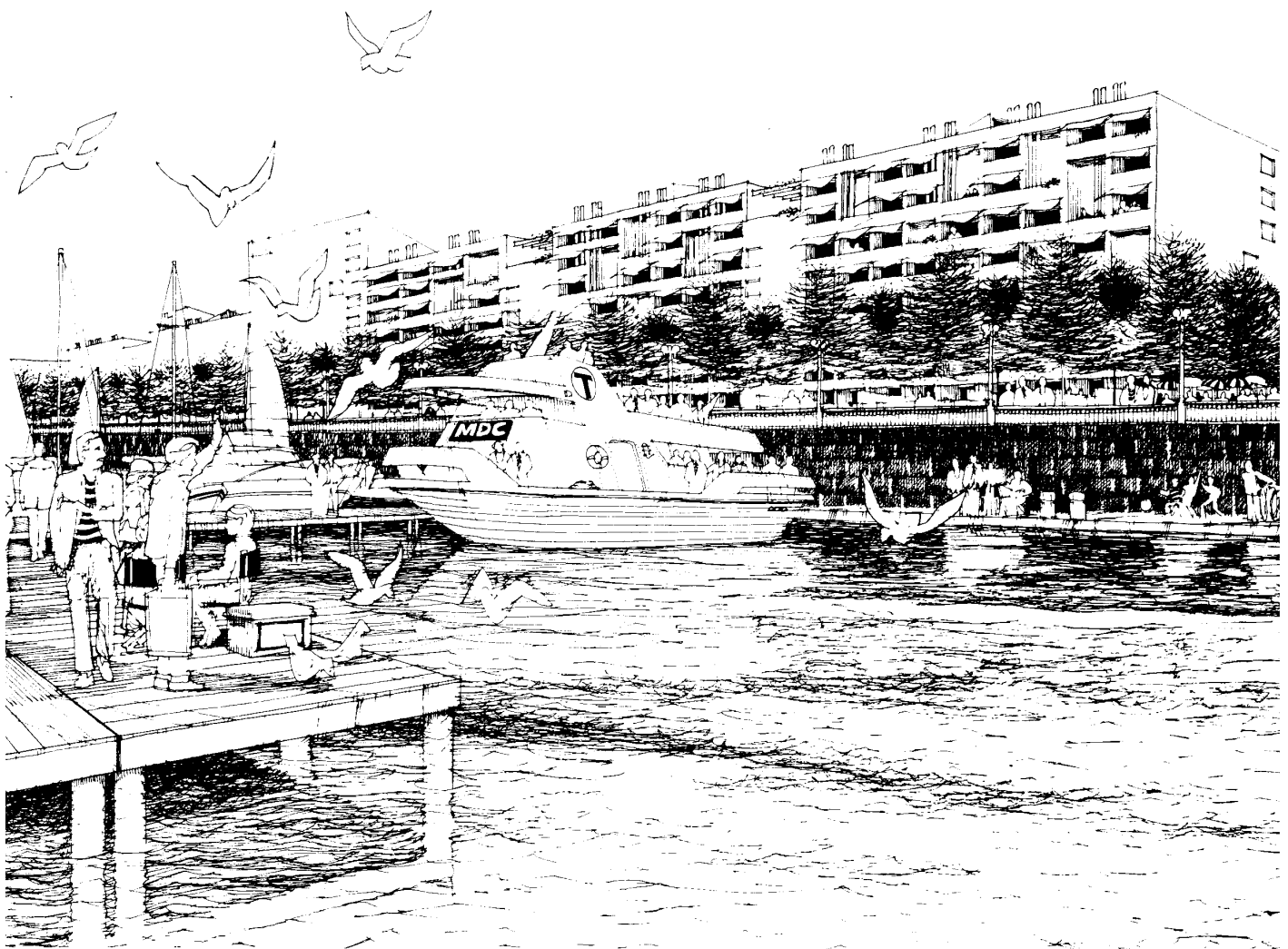
## The Front

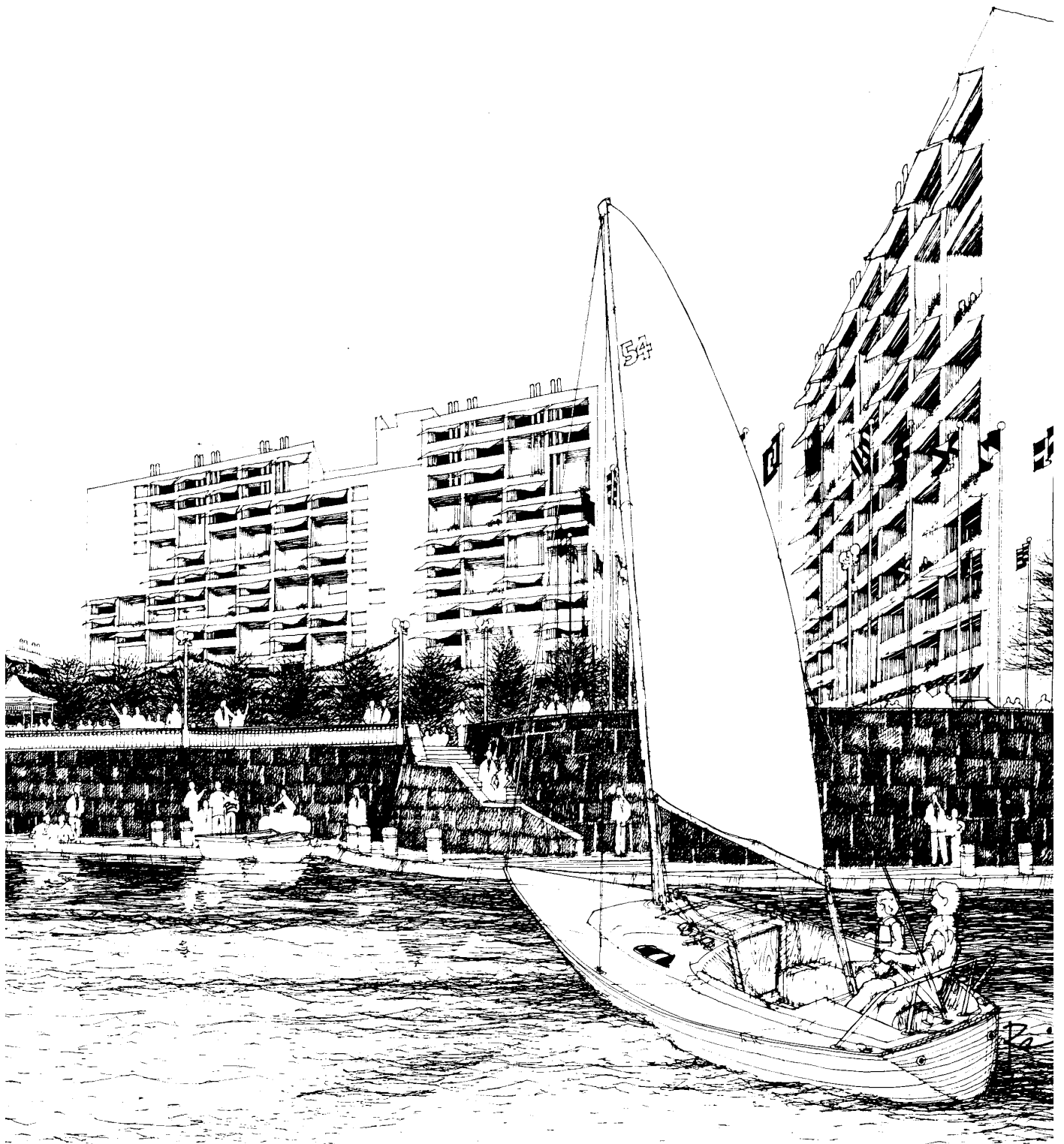
The Front draws its name from Charles Eliot's unfulfilled vision of East Cambridge's Riverfront Park, as related in the chapter on history. The overall concept of this development district is a major public river front park combined with new housing. This will enable East Cambridge to present an exciting new positive face toward Boston and the Charles River.

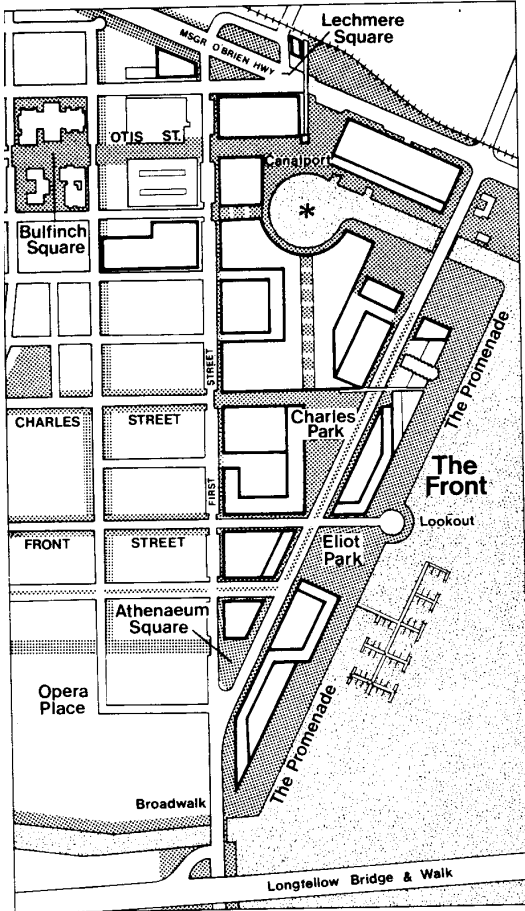
It is virtually impossible to recapture "The Front" proposal of 1895 in detail, because only one-quarter of the area of the original proposal is still in public hands. (That area is the Cambridge Parkway under control of the Metropolitan District Commission). However, the creation of an important public open space on the riverfront, a "jewel" in

Eliot's terms, can be realized with the closing of the Parkway to through traffic. The design proposal extends the open space back to Commercial Avenue at a central point, forming Eliot Park, enlarging the riverfront park and providing a needed focal point along the 2400 foot long front.

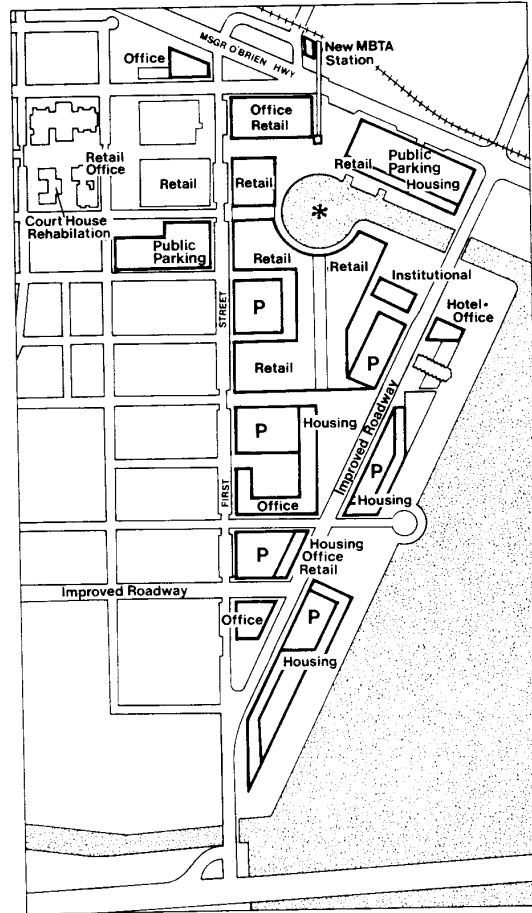
This focus is emphasized by both the construction of the Overlook at the end of Front Street and the creation of a new public marina jutting out into the river. Furthermore, Eliot Park enables a driver on Commercial Avenue, the new extension of Memorial Drive, to enjoy visual access to the Charles River Basin.







41. Planned Open Space.



42. Planned Land Use.

The most suitable use for new private development at The Front is residential with limited retail and office space at Eliot Park and Broad Canal.

The massing of the housing responds to the river and open space system, historic East Cambridge's fears about excessive height, sun/shadow configurations, and views of the Charles River, Longfellow Bridge and Boston. The massing of structures builds in intensity and height toward Eliot Park; the tallest building abuts Eliot Park furthest from the river on the western side of Commercial Avenue. (This building will have office and retail use in its lower floors and offer impressive views of both The Front and the Charles.) The housing collectively hugs the open space system and visually contains the Charles River, much like the buildings across the river in Boston's Back Bay.



43. Castle Combe, England.

*The beauty of an elegant architectural silhouette has long been treasured by the public. The importance of such silhouettes is increased when bordering an important public open space system such as the Charles River Basin.*



44. York, England.  
*Many of the most successful riverfront parks are passive in nature and are simply designed with materials that reinforce the human scale.*



47. Boston Waterfront.  
*Successful downtown waterfront revitalizations celebrate the human presence and scale, not only in well-designed housing but through additional features which emphasize and animate the water's edge.*



45. Hyde Park Gazebo, London, England.  
*Designed focal points within the open space system give structure and identity to the public domain. More importantly, they encourage activities, planned and spontaneous, to occur.*



46. Rodgers Street.  
*Many fine turn-of-the-century industrial buildings can be re-used as high-quality technical office space.*

Varied and articulated roof lines are intended to form an appropriate silhouette along the river. (Skylines continue to be one of the few characteristics of architecture that holds the public's interest and delight.)

The Front's realization can only have a great beneficial effect on the image of the Charles River's lower basin and the City of Cambridge and it will serve as a catalyst for new development further inland along Front Street.

## Front Street

Rogers Street, renamed Front Street, is planned to be an important new prestigious boulevard for technical industry and office use. Front Street will be redesigned with new landscaping and street furniture as the major linkage between this development district and The Front. With Binney Street widened for east-west through-traffic, Front Street will serve local traffic, as well as pedestrian and bicycle access to the Overlook on the river. Front, Bent and Binney Streets define the technical office district. Planned uses are compatible with the East Cambridge residential neighborhood. Reasonable height and setback regulations, as well as possible street closings, are needed to minimize impact on the existing housing stock.

